



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,974	01/27/2006	Stuart Thompson	025538-00160	9600

4372 7590 06/10/2010
ARENT FOX LLP
1050 CONNECTICUT AVENUE, N.W.
SUITE 400
WASHINGTON, DC 20036

EXAMINER

KIM, HEE-YONG

ART UNIT	PAPER NUMBER
----------	--------------

2621

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

06/10/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

Office Action Summary	Application No. 10/533,974	Applicant(s) THOMPSON, STUART	
	Examiner HEE-YONG KIM	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 15, 16 and 20-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 15-16, and 20-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in reply to Applicant's Response dated February 16, 2010.
2. **Claims 1, 15, 16, and 30** has been amended.
3. **Claims 1, 15-16, and 20-41** are still pending.

Response to Arguments

4. Regarding **claims 1 and 30**, the applicant argues that the motion sensors in Brazier are not image collection device (pp.10, last 8 lines). The examiner respectfully disagrees. The motion sensor is considered as a low resolution of image collection device, because it detects object in its field of view by receiving the reflected light from the object (for example, infrared motion detector).
5. Other than the above, Applicant's arguments with respect to **claims 1, 15-16, and 20-41** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 21 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier (US patent 6,686,952) in view of Kaye (US 5,497,188), hereafter referenced as Brazier and Keye respectively.

Regarding **claim 1**, Brazier and Keye disclose "Surveillance Security System". Specifically Brazier and Keye disclose *a surveillance device comprising a support constructed and arranged to be secured to a structure, a first image collection device (Motion sensor 30 in Fig.2 and 3, column 4, line19) secured to the support, a second image collection device (Video Camera 32 in Fig.1, column 4, line 28) and a servo motor (Motor 23 in Fig.3, column 4, line 14), the second image collection device being moveable (Video camera rotates at column 4, line 43-49) with respect to the support by the servo motor, the second image collection device having an optical axis whereby the servo motor is constructed and arranged to regulate the direction of the optical axis of the second image collection device*. However, Hart fails to disclose wherein the support comprises a plurality of mounting sockets for the first image collection device and the second image collection device, the plurality of mounting sockets being disposed regularly and circumferentially about an axis of the support, the first collection device and the second image collection device being thereby fixedly secured to the support.

In the analogous field of endeavor, Kaye discloses Method for Virtualizing an Environment. Kaye specifically discloses multiple cameras (equivalent to the second image collecting device in the claim) mounted on annular mounting structure (*circumferentially*) encircling the shaft (Fig.7), in order to do the simultaneous panoramic capture of optical information (col.4, line 24-25).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing the second image collection device mounted on annular mounted device, in order to do the simultaneous panoramic capture of optical information. However, Brazier and Kaye still fail to disclose mounting socket.

However, Brazier further discloses light socket in the light housing (col.4, line 38-39). It was well known in the art that the socket facilitates attachment of power and transmission wires and positioning of device.

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing mounting sockets for image collection devices, in order to facilitate attachment of power and transmission wires. The Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, has all the features of claim 1.

Regarding **claim 21**, Brazier and Keye disclose everything as applied above (see claim 1). Brazier further discloses that the first image collection device (motion sensors) can be movable with a motor at column 4, line 18-33, but it can be opt to be *fixed* in use by not using motor.

Regarding **claim 23**, Brazier and Keye disclose everything as applied above (see claim 1). Brazier further discloses *wherein data collected from the first image collection device are processed to automatically detect an event such as motion (Sensor members detecting movement), and the result of such detection used to automatically*

Art Unit: 2621

control the servo motor when an event is detected (Video camera rotates where the movement is detected) at column 4, line 43-49.

8. **Claims 15,16, 20 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of House (US patent 5,878,283), hereafter referenced as House.

Regarding **claim 15**, the Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, as applied to claim 1, discloses *a surveillance device having plural spatially image collection devices* (Brazier: Motion sensor 30's in Fig.2 and 3, column 4, line19), *each spatially fixed image collection devices having a fixed field of view, at least one further camera device* (Brazier: one further Motion sensor 30 in Fig.2 and 3, column 4, line19), *the at least one further camera device* (Brazier: Video Camera 32 in Fig.1, column 4, line 28) *having a field of view movable in space* (Brazier: Video camera rotates at column 4, line 43-49), *and processing circuitry* (Brazier: circuit board 17 in Fig. 3, column 4, line 23-24) *operable in response to signals from at least one of said plural spatially fixed camera devices to cause the field of view of the at least one further camera device to include a given area* (Brazier: Video camera rotates where the movement is detected, column 4, line 43-49); *wherein the support comprises a plurality of mounting sockets for the first image collection device and the second image collection device, the plurality of mounting sockets being disposed regularly and circumferentially about an axis of the support, the first collection device and the second image collection device being thereby fixedly secured to the support*

Art Unit: 2621

(see above claim 1).

However Brazier and Keye fail to disclose that the above spatially fixed image collection devices are *camera devices*. However the examiner maintains that it was well known in the art to provide that Motion sensors can be substituted with *cameras* with motion sensor as taught by House.

In the similar field of view House discloses Single-Use Camera with Motion Sensor. Specifically House discloses a camera with motion sensor, in order to avoid false alarm (col.9, line 51-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by substituting Motion sensors with cameras with motion sensors, in order to avoid false alarm. The Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, and further incorporating the House substituting motion sensors with the camera with motion sensor, has all the features of claim 15.

Regarding **claim 16**, the Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, and further substituting motion detector with the House camera built-in motion detector, as applied to claim 15, discloses *electrical connector device for each socket* (Brazier: all the cameras are adapted to be connected to the circuit board, at column 5, line 5-55, therefore, there exists an electrical connector device), *communication network* (Brazier: the computer jack is

Art Unit: 2621

disposed upon the circuit board at column 4, line 25-27, therefore, there exists a communication network). However, it fails to disclose various sockets other than sockets for image collection devices. However, the examiner maintains that the same motivation applies to various other sockets as well as to socket for image collection devices (see claim 1).

Regarding **claim 20**, Brazier and Keye disclose everything claimed as applied above (see claim 1). Brazier further discloses *wherein the first image collection device comprises plural motion sensors, disposed to provide a substantially uninterrupted field of view* (inherent in Brazier, because each of motion sensor array has uninterrupted field of view). However Brazier and Keye fail to disclose *wherein the first image collection devices are plural camera devices*. However the examiner maintains that it was well known in the art to provide that Motion sensors can be substituted with *cameras* with motion sensor as taught by House.

Specifically House discloses a camera with motion sensor, in order to avoid false alarm (col.9, line 51-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by substituting Motion sensors with cameras with motion sensors, in order to avoid false alarm. The Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, and further incorporating the House substituting motion sensors with the camera with motion sensor, has all the features of claim 20.

Regarding **claim 22**, Brazier and Keye disclose everything claimed as applied above (see claim 20). Brazier further discloses that the first image collection device (motion sensors, interchangeably with camera) can be movable with a motor at column 4, line 18-33, but it can be chosen to be *fixed* in use by not using motor.

9. **Claims 24 and 27-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Conoval (US patent 6,400,903), hereafter referenced as Conoval.

Regarding **claim 24**, Brazier and Keye disclose everything claimed as applied above (see claim 1). Brazier further discloses that all image collection devices are in the communication (Brazier: the computer jack is disposed upon the circuit board at column 4, line 25-27, and therefore there exists a communication network). Brazier also teaches a processor connected to all the cameras (computer jacks disposed on circuit board and video camera being conveniently connect to a computer at column 4, line 26-33).

However Brazier and Keye fail to disclose a specific detail of networking such that *a processor has a first port connected to receive data representatives of images collected by the first and second image collection devices, the second port connected to the servo motor for control thereof and a third port connected to a data input/output interface device*. However the examiner maintains that it was well known in the art to provide that *a processor has a first port connected to receive data representatives of images collected by the first and second image collection devices, the second port*

Art Unit: 2621

connected to the servo motor for control thereof and a third port connected to a data input/output interface device, as taught by Conoval.

In the similar field of view Conoval discloses Remote Camera Relay Controller Method and Apparatus. Conoval specifically discloses *a processor has a first port (LAN, column 2, line 38-40) connected to receive data representatives of images collected by the first and second image collection devices, the second port (Infrared port, column 9, line 51-58) connected to the servo motor for control thereof and a third port (Fig. 4B and 4C, Serial/USART port, column 10, line 55- column 12, line 3) connected to a data input/output interface device (Modem, Fig. 4B).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing wherein *a processor having a first port connected to receive data representatives of images collected by the first and second image collection devices, the second port connected to the servo motor for control thereof and a third port connected to a data input/output interface device, as taught by Conoval, for the purpose of communication and control between a processor and cameras. The Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, further incorporating the Conoval the first and second and third communication ports, has all the features of claim 24.*

Regarding **claim 27**, the Brazier Surveillance Security System, incorporating the Kaye cameras mounted on annular mounted device, further incorporating mounting sockets for the image collection devices, further incorporating the Conoval the first and

Art Unit: 2621

second and third communication ports, as applied to claim 24, discloses *wherein the processor device converts data from the first and second image collection devices using a communications protocol into a pulse stream* (host modem receives serial data from host computer at column 10, line 55-60), *for output at the third port (Modem at Fig. 4B).*

Regarding **claim 28 and 29**, Brazier and Keye disclose everything claimed as applied above (see claim 1). However Brazier and Keye fail to disclose *wherein the second image collection device has a zoom input and a field of view is variable in dependence on a control signal at the zoom input.* Also Brazier and Keye fail to disclose *wherein the second image collection device has a tilt input, and a field of view is variable in dependence on a control signal at the tilt input.* However the examiner maintains that it was well known in the art to provide *wherein the second image collection device has a zoom and tilt input, and a field of view is variable in dependence on a control signal at the zoom input*, as taught by Conoval.

Specifically Conoval discloses camera with tilt support in Fig.3B, communication of camera-to-host connection and controlling tilt and zoom to make field of view selectable (column 4, line 52-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing *wherein the second image collection device has a zoom and tilt input, and a field of view is variable in dependence on a control signal at the zoom and tilt input*, as taught by Conoval, for the purpose of providing tilting and zooming function making field of views selectable and o view the information at various view scales.

Regarding **claim 30**, the invention is equivalent to claim 1 in addition to a computer remote from the surveillance device, and communication device interconnecting them. Brazier and Keye disclose everything claimed as applied above (see claim 1). Brazier further discloses a computer and interconnection of computer and the surveillance device. However Brazier and Keye fail to disclose that the computer is *remote*. However the examiner maintains that it was well known in the art to provide a *surveillance system comprising a surveillance device in combination with a computer remote from the surveillance device, the system further comprising a communications device interconnecting the surveillance device and the remote computer*, as taught by Conoval.

Specifically Conoval discloses a local host processor (Computer) and remote camera and communication channel between them in abstract. Notice that local and remote are in the opposite with respect to the claim, but it is a matter of perspective.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing *a surveillance system comprising a surveillance device in combination with a computer remote from the surveillance device, the system further comprising a communications device interconnecting the surveillance device and the remote computer*, as taught by Conoval, for the purpose of controlling cameras from remote.

10. **Claims 25 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Gilbert (US patent 6,337,683), hereafter referenced as Gilbert.

Regarding **claim 25**, Brazier and Keye disclose everything claimed as applied above (see claim 1). However Brazier and House fails to disclose *wherein the first and second image collection devices each include respective embedded processing circuitry each embedded processing circuitry being connected to communicate with the first port of the processor device*. However the examiner maintains that it was well known in the art to provide *wherein the first and second image collection devices each include respective embedded processing circuitry, each embedded processing circuitry being connected to communicate with the first port of the processor device*, as taught by Gilbert.

In the similar field of view Gilbert discloses Panoramic Movie Which Simulate Movement through Multidimensional Space. Specifically Gilbert discloses that camera (*Image collection devices*) includes embedded processor in the electronic component as shown in Fig. 6 and column 6, line 52-65.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and House by providing *wherein the first and second image collection devices each include respective embedded processing circuitry, each embedded processing circuitry being connected to communicate with the first port of the processor device*, as taught by Gilbert, for the purpose of image specific processings.

Regarding **claim 26**, Brazier and Gilbert discloses everything claimed as applied above (see claim 25). Brazier further discloses that Video camera rotates where the

Art Unit: 2621

movement is detected) at column 4, line 43-49. And also discloses that all the image collection devices are in the communication at column 5, line 5-55.

Therefore, *wherein the processor device is operable to monitor data received from the embedded processing device of the first image collection device and, in respect thereto, to supply commands to the servo motor via the second port*, is inherent in Brazier, because there must be a control command to enable to rotate motor through the communication.

11. **Claims 31 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Conoval, and further in view of Monroe (US-PGPUB 2004/0008253), hereafter referenced as Monroe.

Regarding **claim 31**, Brazier and Keye and Conoval disclose everything claimed as applied above (see claim 30). However, Brazier and Keye and Conoval fail to disclose *wherein the communications device comprises one or more of an Ethernet cable and a wireless communication system*. However the examiner maintains that it was well known in the art to provide *wherein the communications device comprises one or more of an Ethernet cable and a wireless communication system*, as taught by Monroe.

In the similar field of view, Monroe discloses Comprehensive Multimedia Surveillance and Response System for Aircraft, Operations Centers, Airports and Other Commercial Transports, Centers and Terminals. Specifically Monroe discloses *communications device comprises one or more of an Ethernet cable and a wireless*

communication system. (Wired and wireless cameras in the paragraph 547, and a hub 112 connecting both type of devices in Fig. 9 and the paragraph 459).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and Conoval by providing *wherein the communications device comprises one or more of an Ethernet cable and a wireless communication system*, as taught by Monroe, for the purpose of connecting mixture of wired and wireless cameras.

Regarding **claim 32**, Brazier and Keye and Conoval disclose everything claimed as applied above (see claim 30). However, Brazier and Keye and Conoval fail to disclose *wherein the communications device comprises a wireless communication system, the wireless communication system comprising at least one of comprises a radio channel and a wireless LAN or "WiFi"*. However the examiner maintains that it was well known in the art to provide *wherein the communications device comprises a wireless communication system, the wireless communication system comprising at least one of comprises a radio channel and a wireless LAN or "WiFi"*, as taught by Monroe 2004.

Specifically Monroe discloses that a hub (112, Fig. 9) with Wireless Access Point can accommodate wireless communication devices, and the examiner maintains that it can be chosen to be *Wireless* only. Monroe further discloses *LAN* at the paragraph 459.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and Conoval by providing *wherein the communications device comprises a wireless communication system, the wireless*

Art Unit: 2621

communication system comprising at least one of comprises a radio channel and a wireless LAN or "WiFi", for the purpose of connecting wireless cameras.

12. **Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of House, and further in view of Cutaia (US-PGPUB 2002/0004390), hereafter referenced as Cutaia.

Regarding **claim 33**, Brazier and Keye and House disclose everything claimed as applied above (see claim 16). However Brazier and Keye and House fail to disclose *wherein the device for communicating with said socket devices and further socket devices comprises an intelligent hub device*. However the examiner maintains that it was well known in the art to provide *wherein the device for communicating with said socket devices and further socket devices comprises an intelligent hub device*, as taught by Cutaia.

In the similar field of view, Cutaia discloses Method and System for Managing Telecommunications Service and Network Interconnection. Specifically Cutaia discloses hubs (57, 61) at Fig. 1 and paragraph 35, which can be chosen as intelligent *hubs* to have more functionalities.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and Conoval by providing *wherein the device for communicating with said socket devices and further socket devices comprises an intelligent hub device* as taught by Cutaia, for the purpose of more active functionalities.

13. **Claim 34** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Nayar (US patent 6,215,519), hereafter referenced as Nayar.

Regarding **claim 34**, Brazier and Keye disclose everything claimed as applied above (see claim 1). However Brazier and Keye fail to disclose *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera*. However the examiner maintains that it was well known in the art to provide *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera*, as taught by Nayar.

In the similar field of view, Nayar discloses Combined Wide Angle and Narrow Angle Imaging System and Method for Surveillance and Monitoring. Specifically Nayar discloses *wherein a processor runs a predictive control algorithm* (Motion Detector in Fig. 6 and its detail in figure 7A, 7B, 7C and at column 11, line 8 –o column 12, line 43) *whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera* (an exemplary fee forward term is twice the difference between the previous smoothed viewing position and the *previous actual object position*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of*

interest are used to determine where to aim a movable camera, as taught by Nayar, for the purpose of object tracking.

14. **Claim 35** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Conoval and further in view of Nayar.

Regarding **claim 35**, Brazier and Keye and Conoval disclose everything claimed as applied above (see claim 30). However Brazier and Keye and Conoval fail to disclose *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera*. However the examiner maintains that it was well known in the art to provide *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera, as taught by Nayar*.

Specifically Nayar discloses *wherein a processor runs a predictive control algorithm* (Motion Detector in Fig. 6 and its detail in figure 7A, 7B, 7C and at column 11, line 8 –o column 12, line 43) *whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera* (an exemplary fee forward term is twice the difference between the previous smoothed viewing position and the *previous actual object position*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and Conoval by providing *wherein a processor runs a predictive control algorithm whereby previous locations of motion of*

an object of interest are used to determine where to aim a movable camera, as taught by Nayar, for the purpose of object tracking.

15. **Claims 36 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of House, and further in view of Nayar.

Regarding **claim 36**, Brazier and Keye and House disclose everything claimed as applied above (see claim 15). However Brazier and Keye and House fail to disclose *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera.* However the examiner maintains that it was well known in the art to provide *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera, as taught by Nayar.*

In the similar field of view, Nayar discloses Combined Wide Angle and Narrow Angle Imaging System and Method for Surveillance and Monitoring. Specifically Nayar discloses *wherein a processor runs a predictive control algorithm* (Motion Detector in Fig. 6 and its detail in figure 7A, 7B, 7C and at column 11, line 8 –o column 12, line 43) *whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera* (an exemplary fee forward term is twice the difference between the previous smoothed viewing position and the *previous actual object position*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and House by providing *wherein a*

processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera, as taught by Nayar, for the purpose of object tracking.

Regarding **claim 37**, Brazier and Keye and House discloses everything claimed as applied above (see claim 16). However Brazier and Keye and House fail to disclose *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera.* However the examiner maintains that it was well known in the art to provide *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera, as taught by Nayar.*

In the similar field of view, Nayar discloses Combined Wide Angle and Narrow Angle Imaging System and Method for Surveillance and Monitoring. Specifically Nayar discloses *wherein a processor runs a predictive control algorithm* (Motion Detector in Fig. 6 and its detail in figure 7A, 7B, 7C and at column 11, line 8 –o column 12, line 43) *whereby previous locations of motion of an object of interest are used to determine where to aim a movable camera* (an exemplary fee forward term is twice the difference between the previous smoothed viewing position and the *previous actual object position*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye and House by providing *wherein a processor runs a predictive control algorithm whereby previous locations of motion of an*

Art Unit: 2621

object of interest are used to determine where to aim a movable camera, as taught by Nayar, for the purpose of object tracking.

16. **Claim 38** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Fettke (Digital Image Computing Technique and Application, Jan, 2002, pp. 1-6), hereafter referenced as Fettke.

Regarding **claim 38**, Brazier and Keye disclose everything claimed as applied above (see claim 1). However Brazier and Keye fail to disclose *having an "auto-ignore" feature to account for movement of features such as trees and plants, so that a moving camera is not sent to examine areas of no interest.* However the examiner maintains that it was well known in the art to provide *having an "auto-ignore" feature to account for movement of features such as trees and plants, so that a moving camera is not sent to examine areas of no interest,* as taught by Fettke.

In the similar field of view, Fettke discloses Comparison of Background Models for Video Surveillance. Specifically Fettke discloses the method to ignore the background motion such as *tree* movement and *camera shake* in the abstract and the chapter 4.2, and also discloses that this feature is employed by many autonomous video surveillance system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Brazier and Keye by providing *having an "auto-ignore" feature to account for movement of features such as trees and plants, so that a*

Art Unit: 2621

moving camera is not sent to examine areas of no interest, as taught by Fettke, for the purpose of ignoring the movements of background objects.

17. **Claim 39** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of Conoval, and further in view of Fettke.

Regarding **claim 39**, Brazier and Keye and Conoval disclose everything claimed as applied above (see claim 30). The reasoning of being obvious is applied in the same way as claim 38.

18. **Claims 40 and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazier in view of Keye, further in view of House, and further in view of Fettke.

Regarding **claim 40**, Brazier and Keye and House discloses everything claimed as applied above (see claim 15). The reasoning of being obvious is applied in the same way as claim 38.

Regarding **claim 41**, Brazier and Keye and House disclose everything claimed as applied above (see claim 16). The reasoning of being obvious is applied in the same way as claim 38.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hart discloses Interactive Surveillance Device (US 5,473,368).

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE-YONG KIM whose telephone number is (571)270-3669. The examiner can normally be reached on Monday-Thursday, 8:00am-5pm EST.

Art Unit: 2621

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HEE-YONG KIM/
Examiner, Art Unit 4192

/Andy S. Rao/
Primary Examiner, Art Unit 2621
June 2, 2010